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I. The Commission Should Refuse To Grant Any Further Exemptions From The Mandatory Relocation Process For 2 GHz Fixed Microwave Licensees.

A. Clearing Of The Unlicensed Spectrum Is Essential To The Interests Of All Parties.

Parties on all sides agree that portable, unlicensed PCS devices and fixed microwave services cannot share the same spectrum, principally because of the risk of interference to the microwave licensee.² Indeed, only when the “last link” has been cleared from the unlicensed band, permanently and without recourse, can general deployment of even the first unlicensed portable device commence without the risk of unacceptable interference.³ This is true whether the fixed microwave licensee is a public safety entity or a commercial licensee.

As Apple has discussed in previous filings, when the Commission exempted public safety licensees from mandatory relocation, it created a paradox. While the exemption for public safety licensees was designed to address those licensees’ special needs, it will actually exacerbate their problems by subjecting them to intolerable levels of interference. If, however, restrictions are put upon the use of unlicensed, portable PCS devices, unlicensed PCS will not develop.⁴ In light of the significant steps the Commission has taken to promote the development of unlicensed PCS while protecting public safety users, neither of these outcomes is acceptable.

Accordingly, the Commission should deny UTC and APPA’s proposal to expand the scope of the existing exemption.⁵ Even if the Commission were to accept that utility services warrant special protection, the remedy proposed by UTC and APPA is unworkable and unwise for the reasons stated above and

² See, e.g., Reply Comments of the Utilities Telecommunications Council, GEN Docket 90-314, at iii, 17 (filed Jan. 8, 1993) (stating that “[t]here is nearly universal agreement among the commenters that it will not be possible to share the 1910-1930 MHz portion of the 2 GHz band between unlicensed PCS and existing 2 GHz microwave licensees.”).

While Apple generally has addressed only the need to clear the unlicensed band, it is worth noting that prospective PCS licensees are increasingly concluding that, notwithstanding the use of any so-called avoidance schemes, an effective relocation requirement for certain microwave stations – public safety or otherwise – will be essential to deploying licensed PCS as well.

³ E.g., Reply Comments of Apple Computer, Inc., ET Docket 92-9, at 4 (filed Feb. 12, 1993).

⁴ See *id.*; Comments of Apple Computer, Inc., ET Docket 92-9, at 5-7 (filed Jan. 13, 1993).

⁵ Indeed, as Apple has stated in previous pleadings, the Commission should require relocation of all existing 2 GHz licensees, including public safety licensees.

described more fully in Apple's previous pleadings. Rather than adopt an approach that threatens to harm either the utilities' existing networks or the development of unlicensed PCS, the Commission should consider an approach that would simplify and expedite the relocation of utilities' stations out of harm's way.

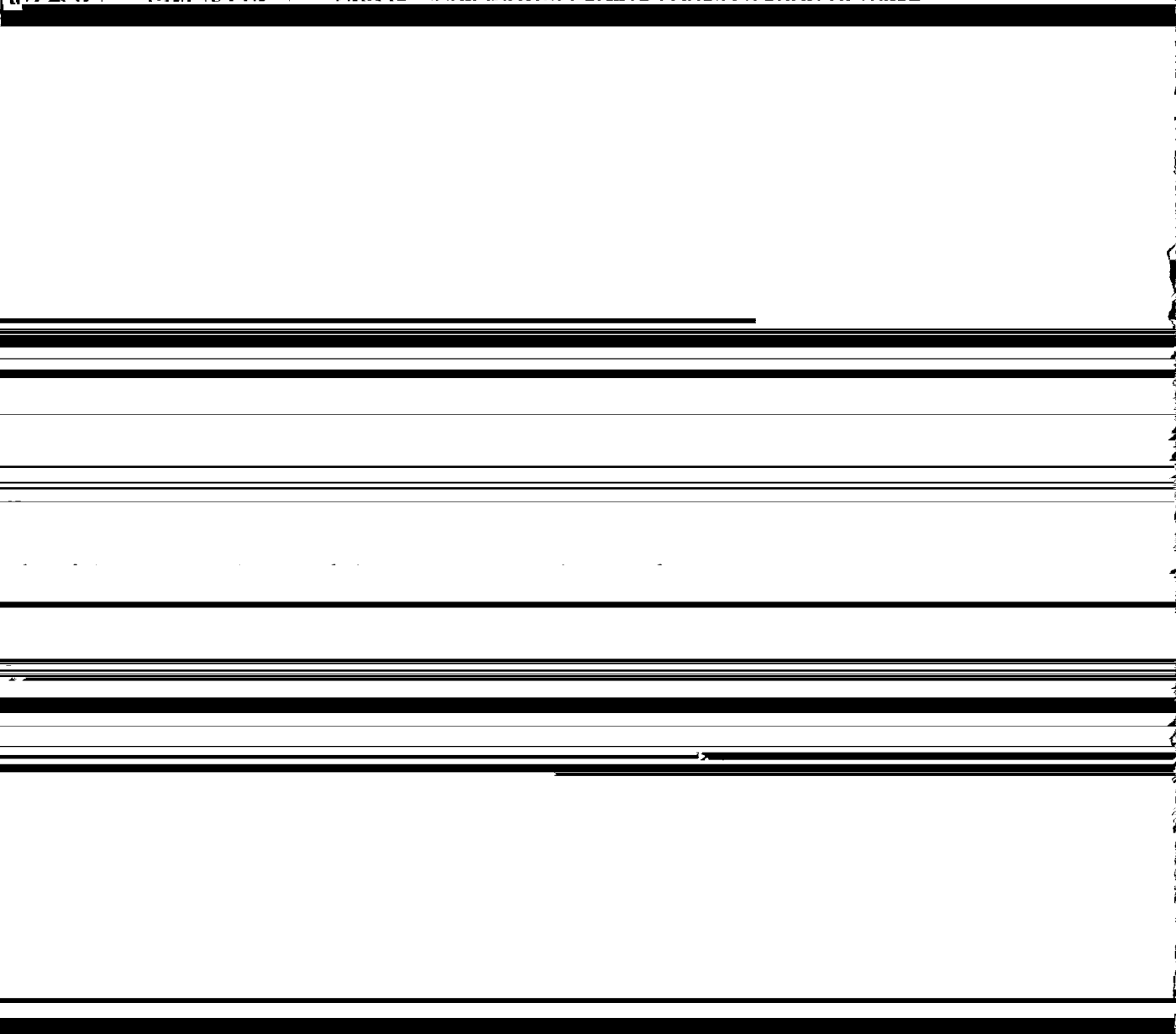
B. The Transition Plan Provides Adequate Protections For Existing Licensees.

The exemption sought by UTC and APPA is not merely unwise, it is also unnecessary. The Commission's existing transition plan provides layer upon layer of protections designed to ensure that the relocation of existing facilities will be paid for by all PCS providers and will provide comparable facilities to microwave licensees, with adequate testing time to ensure a seamless transition. Neither UTC nor APPA has demonstrated how this transition plan fails to protect the reliable, secure communications their members require. Rather, in support of their claim for an exemption from mandatory relocation, they simply assert that utilities should not be treated differently from public safety licensees.

Expanding The Scope Of The Current Exemption Would

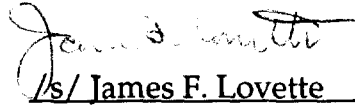
(including the adjacent federal government band).⁶ The use of alternate media, such as fiber optics and satellite links, however, should not be dismissed out of hand. In its Petition, UTC categorically states that satellite and fiber optics "do not provide a sufficient degree of reliability to act as a wholesale replacement for 2 GHz microwave systems."⁷ In fact, there are widespread trends towards adopting fiber optic cables for primary or backup communications links, even among utility companies, as bandwidth demands grow beyond the capacity of 10 MHz microwave channels.

In the Order, the Commission already addressed a similar argument advanced by UTC.⁸ It noted the significant benefits that satellite and fiber can provide in appropriate circumstances, stating "that fiber optics and satellites are viable alternatives to spectrum for some systems and encourag[ing] their consideration where practicable."⁹ The Order contains a reasonable balance that protects existing licensees while not precluding careful consideration of these



Respectfully submitted,

Apple Computer, Inc.

A handwritten signature in cursive script, appearing to read "James F. Lovette", written over a horizontal line.

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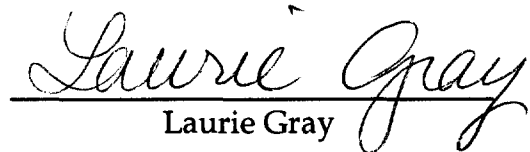
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CERTIFICATE OF SERVICE

I, Laurie Gray, hereby certify that a copy of the foregoing Opposition to Petitions for Clarification and/or Reconsideration has been served via first-class mail, postage prepaid, this 30th day of March, 1993, to the following:

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